4. Overview of Options

Once the terms of the Privacy Statement are agreed upon, the user will be led to the *National Flood Mitigation Data Collection Tool* main menu and presented with six options: *Limited Data View, Detailed Data View, Reports, Utilities, Help,* and *Exit Application*.

4.1 Limited Data View

The *Limited Data View* enables the user to enter data from a brief visual inspection of the property, limited communication with the property owner/occupant or neighbor, and basic flood risk data from the FIRM. There is also an option for the user to describe potential or pending mitigation actions. Data in the *Limited Data View* serve as the basis for all data records and should be completed prior to the collection of detailed data.

4.2 Detailed Data View

Detailed data collection is suitable when a more thorough inspection of the property and its surroundings is conducted, as well as when local or state officials are contacted for structure-specific information and coordination of on-site data collection efforts. *Limited Data View* information should also be collected and populated within the NT as part of detailed data collection efforts.

4.3 Reports

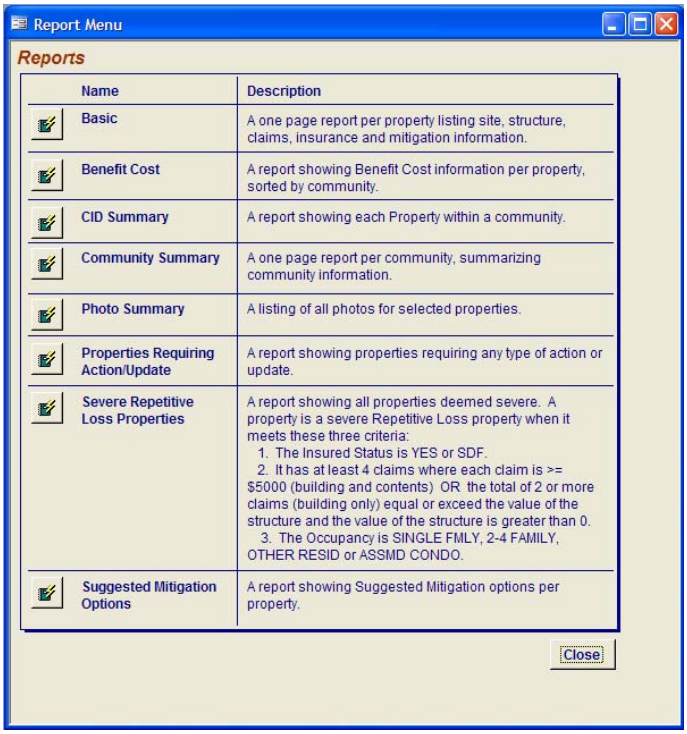
The *Reports* function allows the user to access summary reports of structure records. Reports can be accessed from the main menu or by selecting *View*/*Reports* on the top tool bar of the *Limited and Detailed Data Views*. Reports can be printed by selecting *Print* from the Print Menu or they can be saved as a separate file by selecting *Export.* A variety of formats including Microsoft Office Excel and Snapshot Format can be chosen by selecting the desired output from the *Save As Type* menu. There are currently eight types of reports available to the user.

4.3.1 Basic

This report is a one-page summary of property information for each property selected. It includes information on the site, structure, claims, insurance, and mitigation measures.

4.3.2 Benefit-Cost

This report is prepared for each selected property and contains data collected with the NT that can be used in the development of a FEMA Benefit-Cost Analysis, including property value information and flood risk data.



4.3.3 CID Summary

The Community Identification Number (CID) report provides property listings (address and Property Locator/Repetitive Loss Number) for all records in the NT for a specific community.

4.3.4 Community Summary

This report provides counts of records, by community, corresponding to properties that require updates, properties that are mitigated, flood source, and land use.

4.3.5 Photo Summary

This report shows all photographs attached to a record for the selected property.

4.3.6 Properties Requiring Action/Update

This report contains a listing of properties that require follow up action by FEMA. When the property's address needs updating, the property becomes a duplicate listing with another RL number when mitigation actions not recorded in the FEMA RL database (or recorded incorrectly) were observed and/or when claims records require updating.

4.3.7 Severe Repetitive Loss Properties

This report contains listings, including address, RL number, and claims history for those properties meeting the current severe repetitive loss property definition. However, in addition to the 1 to 4 family residences identified in the official definition, the report will also include listings for the "OTHER RESID" occupancy type found in BureauNet.

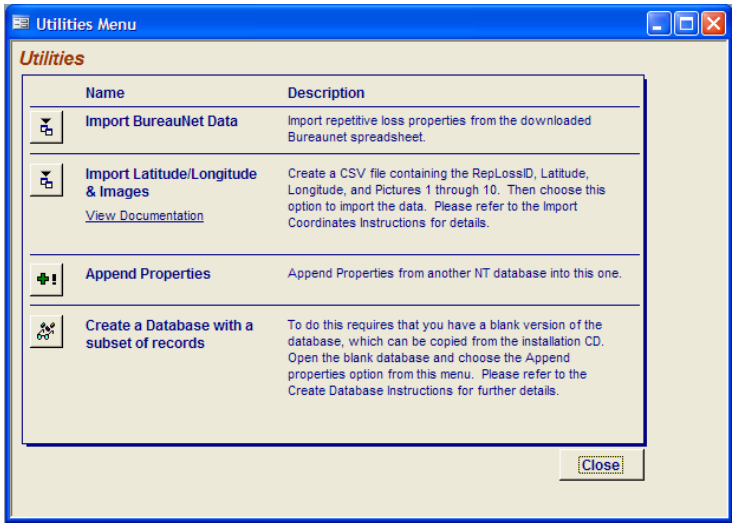
4.3.8 Suggested Mitigation Options

This report summarizes possible mitigation options for select properties as entered in the NT. For example, if the community or owner has plans to mitigate the structure and is awaiting funding, it should be noted in the *Flood Risk and*

Mitigation Possibilities/Possible Mitigation Measures section and will then be reported here.

4.4 Utilities

Four options are included in the *Utilities* menu: import BureauNet data, import property information, append properties to an existing database, or create a new database.



4.4.1 Import BureauNet Data

The *Import BureauNet Data* function allows data from BureauNet to be uploaded to the NT and used to create new records or to update information in existing records.

BureauNet is an NFIP database that stores records of all NFIP claims and policies. BureauNet data are used as a starting point to create records in the NT; when BureauNet data are imported, new records will be created for each property included in the BureauNet data that does not already have a record in the NT. Existing NT records that correspond to records in the BureauNet data being imported will have all BureauNet-populated fields overridden each time there is an import; field data captured by the NT will remain intact. BureauNet data include the address and CID of the structure, insured and claimant information, data on claims paid, and information on mitigation measures taken that have been previously captured by FEMA.

Prior to field inspections, BureauNet data for the structures of interest should be obtained from the appropriate FEMA Regional RL Coordinator in the form of a Repetitive Loss Data State/Community Drill Down, MS Excel file. The file contains records for RL structures with information on claims and, in some cases, previously captured mitigation information for the property. Regional RL Coordinators have the capability to access BureauNet and related systems to perform data queries. A list of Regional RL Coordinators is provided as Appendix D. The BureauNet Drill Down can be accessed via an internet connection in one of three ways by either FEMA personnel or, in some cases, state officials. These include the following means:

- NFIP BureauNet Website – requires login, password, and dial-up connection for direct dial into the site

- From the Main Screen, choose the *Computer Technical Systems Report* link
- Choose the *Data Look-up* link
- You will be prompted to enter the user name and password again
- From the reports page, choose *Repetitive Loss Data State/Community Drill Down*
- Choose the property type for the report (e.g., all records, mitigated records only, or non-mitigated records only) and select *Run Report*
- Each state is listed in a table with a link titled EXCEL at the end of each row
- Click on the EXCEL link to access the proper MS Excel output file

- NFIP Data Exchange System – login and password protected with access over any internet connection
  - From the FEMA Data Lookup and Drill Down page, select the Repetitive Loss Data State/Community Drill Down
  - Choose the property type for the report (e.g., all records, mitigated records only, or non-mitigated records only) and select Run Report
  - Each state is listed in a table with a link titled STATE near the end of each row
  - Click on the STATE link to access the proper MS Excel output file

- SQANet – login and password protected with access over any internet connection. Authorized state and Federal officials can request access via the following website http://nfipnextgen.com/sfr/signup.do. Directions for accessing the files including the following:
  - Choose Pilot SQANet link from NextGen website (http://nfipnextgen.com/index.html) and enter your login and password
  - From the Folders Menu in the top left corner, expand the SQANet – Repetitive Loss folder
  - Choose NFMDCT Data Import
  - You must select a display option, state, and the report property types (e.g., mitigated or unmitigated), and select Submit
  - An MS Excel icon will then be available to open and/or download the file

Before uploading the data to the NT, the following steps must be taken:

- Any records for structures that are not of interest should be deleted
- The output file must be saved as MS Excel version 5.0 or higher

When the *Import BureauNet Data* function is selected, the user will be prompted to browse to the appropriate BureauNet data output file. The NT will create new records for each property listed in the BureauNet data output file and update records already in the NT with this information. Therefore, the output file from BureauNet should contain information for structures that need new records created or structures that need address, claim, and policy data updated.

After choosing the appropriate Excel file, the next screen prompts the user to choose whether or not to continue with the data import. If *Yes* is selected, the information will be imported and records will be added. Again, this exercise should be completed prior to going out in the field.

The BureauNet Import provides key information about the structure, including the address on record, claims paid history, policy information, and information on mitigation actions. BureauNet data itself cannot be edited within the NT. However, there are opportunities within the NT to provide updated or better information back to the NFIP that can be used to update BureauNet data. There are boxes on the Address and Updates tab in the Limited Data View and on the Claims tab of the Detailed Data View to be checked if the user finds updated or more accurate data during field work and/or research that should be reported to the NFIP. Checked boxes will serve as markers that the existing information in BureauNet may need to be updated with the new data.

4.4.2 Import Latitude/Longitude and Images

This feature enables the user to import latitude and longitude coordinates as well as photographs and other images through an automated process.

a) Create an import file with a Comma Separated Values (CSV) format. One way to do this is to create a spreadsheet in Excel, populate it as described in steps b) through d), and save it as a CSV file by choosing File / Save As / Save As Type: CSV (comma delimited) (*.CSV). Row 1 of the file must contain heading labels as shown in Table 1. Each subsequent row will contain data. An example of the file is shown in Table 2.

Table 1. Heading Labels for Import File

REPLOSSID	LATITUDE	LONGITUDE	PIC1	PIC2	PIC3	PIC4	PIC5	PIC6	PIC7	PIC8	PIC9	PIC10

b) For each property, it is necessary to populate the file with a unique identifier. This identifier goes in the column labeled REPLOSSID. For repetitive loss structures, this should be the seven-digit Property Locator Number or Rep Loss ID Number. The user does not need to enter any leading zeros; if the

number entered is less than seven digits, preceding zeroes will automatically be added to bring it to a total length of seven digits. For example, 56 will become 0000056.

For structures other than repetitive losses, the REPLOSSID field should be populated with the alphanumeric identifier described in Section 6.1.1 (CID Street Address). For existing records, the REPLOSSID must match exactly with a record's current Property Locator/Repetitive Loss Number in order for the data to be associated with that record.

c) LATITUDE and LONGITUDE are numeric fields that should be formatted as decimal degrees with up to three numbers left of the decimal (and a negative sign when necessary), and six numbers to the right of the decimal (-123.123456). Note that all latitude measurements must be between -90 and 90 degrees and all longitude measurements must be within the -180 to 180 degree range.

Latitude and longitude readings can be collected by and downloaded from most handheld Global Positioning System (GPS) units. Location readings can be transcribed from the visual display on the unit for each location; however, downloading them directly into the computer may be preferred. Most GPS units on the market today come with computer attachment cables and software included or is available as an option. Once the GPS data is transferred to the computer, the entire list of GPS readings can be managed systematically and the cut and paste tools can be used to minimize the errors associated with re-typing the numbers.

Many other tools are also available for use in downloading GPS points to computers, some of which can be acquired for little or no cost. One such example for Garmin® users is a program called DNRGarmin from the Minnesota Department of Natural Resources[1] which imports and exports information between the GPS and the computer using formats compatible with Geographic Information Systems (GIS). Other products are available on the Internet that download data from other or, in some cases, many makers.

In order to get the latitude/longitude readings from the handheld GPS into a format usable for import into the NT, some user re-formatting may be necessary. To import the readings into the NT, latitude/longitude measurements must have only numeric characters, with the exception of a negative sign (-) for western longitude readings, or southern latitude readings. No directional letter symbols (N, S, E, W) should be included as part of the numbers. Additionally, the values must be in the decimal degree format, and latitude and longitude measurements should be stored in different fields and not combined as one piece of data.

[1] The program is available on-line at
http://www.dnr.state.mn.us/mis/gis/tools/arcivew/extensions/DNRGarmin/DNRGarmin.html

Examples of correct and incorrect formatting of a longitude reading are provided in Example 1.

Example 1. Longitude Reading

Decimal degrees:	-76.905791^{o}	CORRECT
Degrees-Minutes-Seconds:	76^{o}54'20.846" W	INCORRECT
Degrees-Minutes:	76^{o}54.347' W	INCORRECT

To convert degrees-minutes-seconds readings to decimal degrees, the following conversion formula is used, where DD.MM.SS.SSS represents the degrees-minutes-seconds format, and DD.DDDDDD represents the decimal degrees format.

DD + [(MM+ SS.SSS/60)/60] = DD.DDDDDD

Similarly, to convert degrees-decimal minutes readings to decimal degrees, the following conversion formula is used, where DD.MM.MMM equals the degrees-decimal minutes format, and DD.DDDDDD equals the decimal degrees format.

DD + (MM.MMM/60) = DD.DDDDDD

d) The PIC1 through PIC10 fields are text fields where the location and name of each image to be imported should be entered. Each field should contain the FULL directory path to the corresponding picture. For example, an image with the name 56_011005_01.jpg located in the <C:\program files\Images> subfolder should have the following text entered in the PIC field: C:\program files\Images\56_011005_01.jpg

In order to import latitude/longitude data or images, the REPLOSSID field must be accurately populated. You can choose to import only latitude and longitude data and no images or vice versa. You can have multiple entries (2 or more records or rows) for the same REPLOSSID if you choose to import more than 10 images. If there is more than one record for a single REPLOSSID and different latitude/longitude measurements are entered, data from the last entry in the import file will overwrite any previous entries.

Table 2 is an example of what a properly formatted file would look like in a spreadsheet.

Table 2. Example of Data Entered in a Spreadsheet

REPLOSSID	LATITUDE	LONGITUDE	PIC1	PIC2	PIC3
56	18.465047	-66.111373	C:\program files\images\56_011005_01.jpg	C:\program files\images\56_011005_02.jpg	C:\program files\images\56_011005_03.jpg
57	40.107851	-88.211601	C:\program files\images\57_011005_01.jpg	C:\program files\images\57_011005_02.jpg	
58			C:\program	C:\program	

			files\images\58_front.bmp	files\images\58_back.bmp	
59	21.328234	-157.831157			

After saving the file as CSV, the output will be formatted with commas as separators and will look like this:

REPLOSSID, LATITUDE, LONGITUDE, PIC1, PIC2, PIC3, PIC4, PIC5, PIC6, PIC7, PIC8, PIC9, PIC10

56,-36.778899,-80.775566, C:\program files\images\56_011005_01.jpg, C:\program files\images\56_011005_02.jpg, C:\program files\images\56_011005_03.jpg

57,44.11223,-45.5522, C:\program files\images\57_011005_01.jpg, C:\program files\images\57_011005_02.jpg

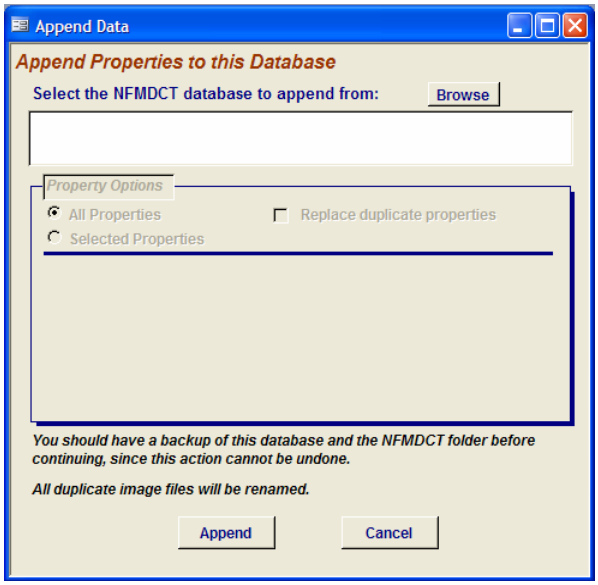
58,,,c:\program files\images\58_front.bmp,c:\program files\images\58_back.bmp

59,35.774,80.556

Note: The data for REPLOSSID 56 in the above example would all be contained on one line in a CSV file.

4.4.3 Append Properties

This feature allows the user to attach or add properties from another database into the currently open database. Once the Append Properties selection is made, the Append Data window will open. A Browse button will allow the user to choose the database containing the records to be added. Furthermore, the user can choose to add either all or only selected properties with the option of using these records to replace any duplicate records within the currently open database.



Records from a database in Access 2002 or 2003 cannot be directly appended to an Access 2000 format database. However, Access 2002 or 2003 databases can be converted to Access 2000 format relatively easily. To convert a 2002/2003 database to 2000 format, open MS Access, and choose Tools/Database Utilities/Convert Database/To Access 2000 File Format. Then select the Access 2002/2003 database to be converted. After prompting the user to name the new file, MS Access will perform the conversion. Use this new Access 2000 format database to perform the append process.

Specific instructions for using the append feature follow:

a) Backup the NFMDCT.MDB database you are working with and the associated NFMDCT folder before continuing. The append procedure cannot be undone, so it is important to create this backup copy.

b) Use the Browse feature to select the database file containing the records/properties you want to add to the current database.

c) In the *Property Options* box, select either *All Properties* or *Selected Properties*, depending on what records you want to add to the current database.

d) The *Append Criteria* window will open if *Selected Properties* is chosen. In this window, various criteria are presented that can be queried to create a subset of records from the selected database. Enter the appropriate selection criteria for the records/properties you want to add and click OK.

e) Check the *Replace duplicate properties* box to update records in the open database with records of duplicate properties from the database being used to append.

f) Select Append to continue, and a status screen will display the progress of the append process. When it is complete, you can view and print the report.

4.4.4 Create a Database with a Subset of Records

This feature allows the user to create a new database with a subset of records from an existing database. This might be necessary in order to provide a community with a database containing only their community's records. The *Create a database with a subset of records* on the utilities menu only links the user to instructions and cannot in and of itself be used to create the new database. To create a new database, the user must open an empty NT MDB file and use the *Append Properties* feature to add existing records to it.

When providing a database to a new user, make certain that he or she has a copy of the NT installation CD and the capability to run the NT on one or more computers (see Appendix A – System Requirements and Installation Instructions). Also, if you are unsure whether the new user has Access 2000 or Access 2002/2003 capabilities, it is best to provide the database in both formats. Access 2002/2003 databases can be converted to Access 2000 format. Refer to instructions in Section 4.4.3.

To create a new database:

a) Copy the NT database that contains the properties for the community and the NFMDCT folder to a CD, memory card, or a location on the community's network, if available. You will need to access this database from the community's PC in step c).

The NT database and the NFMDCT folder, which contains the images and documents for the database, are located in the C:\Program Files\NFMDCT

folder. The NT database and the NFMDCT folder must remain together at all times.

b) Install the National Tool to the community's PC by using the NT Installation CD. Refer to the installation instructions in Appendix A – System Requirements and Installation Instructions for more information.

c) From the community's PC

   i. Open the NT database by selecting: Start / Programs / NFMDCT

   ii. Select the *Utilities* button from the menu

   iii. Select the *Append Properties* button

   iv. On the Append Properties to this Database screen, browse to the NT database that contains the properties for the community (*This is the database that was copied in step a)*

   v. In the *Property Options* section of this screen, click on *Selected Properties* and the Append Criteria screen displays. Enter the criteria for the properties you would like to copy. For example, Community name contains "Karylbrook" or CID = 000123, etc. When you are done with your criteria, click OK to return to the Append Properties to this Database screen.

   vi. Click the *Append* button and the properties, their images and the documents will be copied to the community PC's database

   When the append process is complete, the properties, their images and the documents have been successfully copied to the C:\Program Files\NFMDCT folder. You can remove the CD, memory stick, or files that were copied in step a).

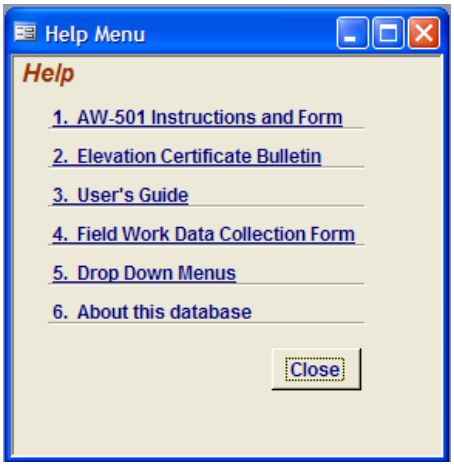
Alternative methods may be used to create a subset of records on another computer, but this is the preferred method. Refer to Section 4.4.3 for further instructions on the Append process.

4.5 Help

The *Help* button on the Main Menu opens a separate *Help Menu* where there are links to several support documents in PDF format[2], including the AW-501 form and instructions, FEMA's Elevation Certificate Bulletin, and this User's Manual.

[2] Note that Adobe Reader 7.0 has a known bug where it will not display PDF documents when they are linked from a Microsoft Office document such as an Access database. You will need Adobe Reader 6.0 to use the links to the PDF documents.

Also included are forms to use in the Field for Data Collection, and drop down menus providing selections to use on the field forms. These documents are stored in the NFMDCT subfolder. Use the links on this menu to reference these documents or print hard copies. Information about the database, including its location on the PC and the versions of the NT and MS Access, is provided by selecting *About this database*.



4.6 Exit Application

The *Exit Application* feature closes the NT and exits out of Microsoft Access.